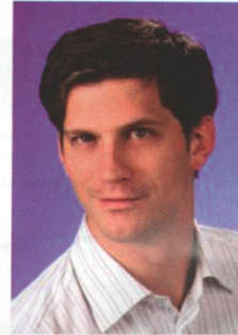
Bronchoplastic resection without pulmonary resection for endobronchial carcinoid tumours

Kai Nowak[1,3], Wolfram Karenovics[1], Andrew G. Nicholson[2], Simon Jordan[1], Michael Dusmet[1]

1 Department of Thoracic Surgery, Royal Brompton Hospital, London, UK; 2 Department of Pathology, Royal Brompton Hospital, London, UK; 3 Division of Surgical Oncology and Thoracic Surgery, Mannheim University Medical Center, University of Heidelberg, Germany



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Bronchial carcinoids are rare neuroendocrine tumours, accounting for less than 5% of all bronchopulmonary tumours. They are categorized as either typical or atypical and have distinctly different prognoses and therapeutic options. Roughly 20% of all carcinoid tumours present as purely intraluminal polyp-like bronchial lesions without gross radiological detectable involvement of the bronchial wall and lung. Until recently, the treatment of choice remained bronchoplastic surgery. However, some authors have described their experience using different endoscopic techniques such as Nd-YAG laser, diathermy and cryosurgery. It is a matter of discussion whether it is necessary to provide some additional local therapy beyond simple excision of the airway component in order to decrease the risk of local recurrence. Long-term follow-up data for both approaches is scant.

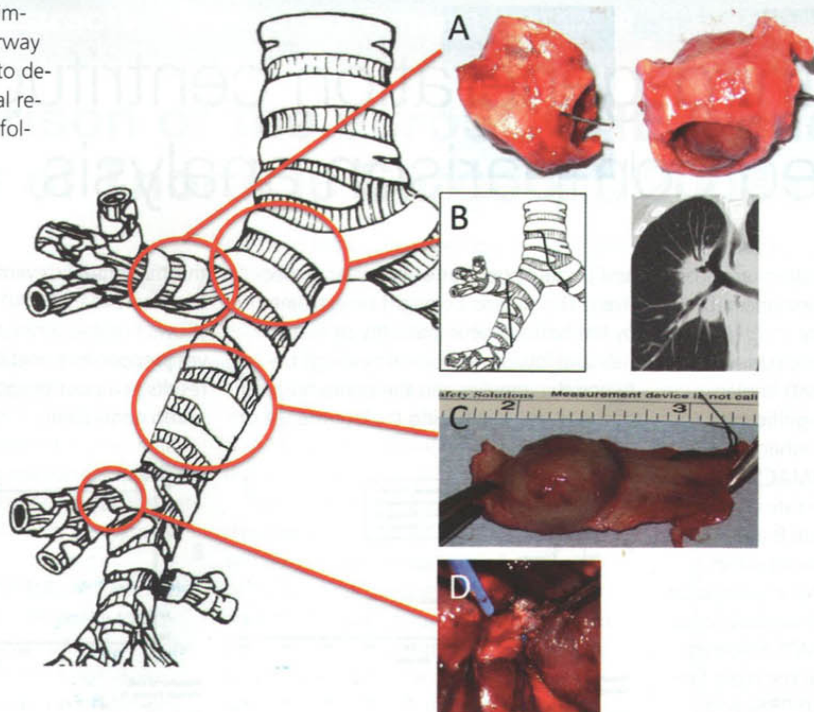
We present our experience with all patients with purely endobronchial carcinoids who underwent parenchyma sparing bronchoplastic resection with systematic nodal dissection over the last 10 years and generated a review of literature.

Thirteen patients (age 45±16 years, 10 male) underwent bronchoplastic resection with systematic nodal dissection for endobronchial carcinoid tumours. No lymph node invasion was observed. There was no significant operative morbidity or mortality. Median follow-up was 6.3 ± 3.3 years. One lesion was an atypical carcinoid and at five years a tiny endobronchial tumourlet was seen in the contralateral airway, which was resected endoscopically.

We reviewed the literature of the last 15 years. The pathologies treated are benign or low-grade malignant tumors, most commonly typical carcinoid and other benign conditions such as stricture or trauma. Parenchyma sparing bronchoplastic resection offered a definite solution for endobronchial carcinoids with very low morbidity and mortality (nil in this series of carcinoids, and up to 25% morbidity and with a complication rate around 5%).

As we could show in our series, surgery remains a good and safe treatment option. It has the advantage of dealing with the problem once and for all and in addition gives a complete lymph node staging. Endoscopic treatments are emerging as a valid alternative or complement in the treatment of these tumours. Endoscopy could serve either as a standalone treatment in case of completely respectable tumours or as a first step in case of incomplete endoscopic resection or recurrence. Endoscopic treatment will however not yield a lymph node staging and larger tumours can be removed only in a piece meal technique. The piece meal technique and mechanical manipulation during endoscopic resection impair pathological assessment. Also, although less invasive, it is in a way more cumbersome for the patient, as several sessions may be necessary in order to achieve resection.

In Conclusion we feel that fit patients should be offered surgical resection, reserving endoscopic resection for those that are unfit for surgery or decline it.



Right sided parenchyma sparing bronchial sleeve resection types for endobronchial carcinoids.
A: upper lobe division bronchial sleeve resection
B: central carinal and right main bronchial sleeve
C: bronchus intermedius sleeve resection
D: sleeve resection of the middle lobe bronchus